

Notice of Allowability

Application No.

10/750,838

Examiner

Kalimah Fernandez

Applicant(s)

TAKEUCHI ET AL.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4-5-05.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 05 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All - b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-16 are allowed. The following is an examiner's statement of reasons for allowance: the prior art fails to teach or fairly suggest the claimed invention. Specifically, no teaching or obvious suggestion was found of the limitation "extracting from the multiple scanning electron microscope images acquired at the first incident angle image domains that are in focus and generating a first composed image; extracting from the multiple scanning electron microscope images acquired at the second incident angle image domains that are in focus and generating a second composed image; and matching the first composed image with the second composed image, detecting the center of tilting of each of the two-composed images, causing the centers of tilting to be aligned with each other, and observing a stereoscopic view from the two composed images" in combination with the limitations of claim 1.

2. In regards to claim 2, no teaching or obvious suggestion was found of the limitation "extracting in-focus image domains from each of the plurality of scanning electron microscope images captured at the first incident angle, and creating a first all in-focus image being in focus over the first all in-

focus image; extracting in-focus image domains from each of the plurality of scanning electron microscope images captured at the second incident angle, and creating a second all-focus image being in focus over the second all in-focus image; calculating a distance between corresponding two pixels in the first all in-focus image and the second all in-focus image; calculating height information by each pixel on the basis of the distance between corresponding two pixels and a difference of angle between the first incident angle and the second incident angle; and creating a height map on the basis of the height information by each pixel" in combination with the other limitations. Likewise, no teaching or obvious suggestion was found of the limitation "a calculation means that calculates height information of the sample by each pixel, on the basis of two all in-focus created by the all in-focus processing means at two different incident angles set by the incident angle control means, from the plurality of sample images of different focuses of the primary electron beam each captured at the two different incident angles" in combination with other requirements of claim 10.

3. No teaching or obvious suggestion was found of the limitation "extracting in-focus image domains from each of the plurality of scanning

electron microscope images based on the first secondary signal, captured at the second incident angle, and creating a third all in-focus image being in focus over the third all in-focus image; and extracting in-focus image domains from each of the plurality of scanning electron microscope images based on the second secondary signal, captured at the second incident angle, and creating a fourth all in-focus image being in focus over the fourth all in-focus image" in combination with the other limitations of claim 4.

4. Claims 3,5-9, and 11-16 are allowed by virtue of their dependency.

5. US Pat No 6,538,249, US Pat No 6,653,633, and US Pat No 6,838,667 issued to the same assignee, are considered the closest art, but fail to teach the above-mentioned limitations as recited in present claims 1-2,4, and 10. In addition, US Pat No. 5,512,747 issued to Maeda is considered relevant to the claimed invention, but fails to teach or fairly suggest the above-mentioned limitation in combination with the requirements of claims 1-2,4, and 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system,
contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF



JOHN R. LEE
SUPERVISORY PATENT EXAMINER
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